

Montana DEQ Forest Fire Smoke Advisory

September 1, 2007

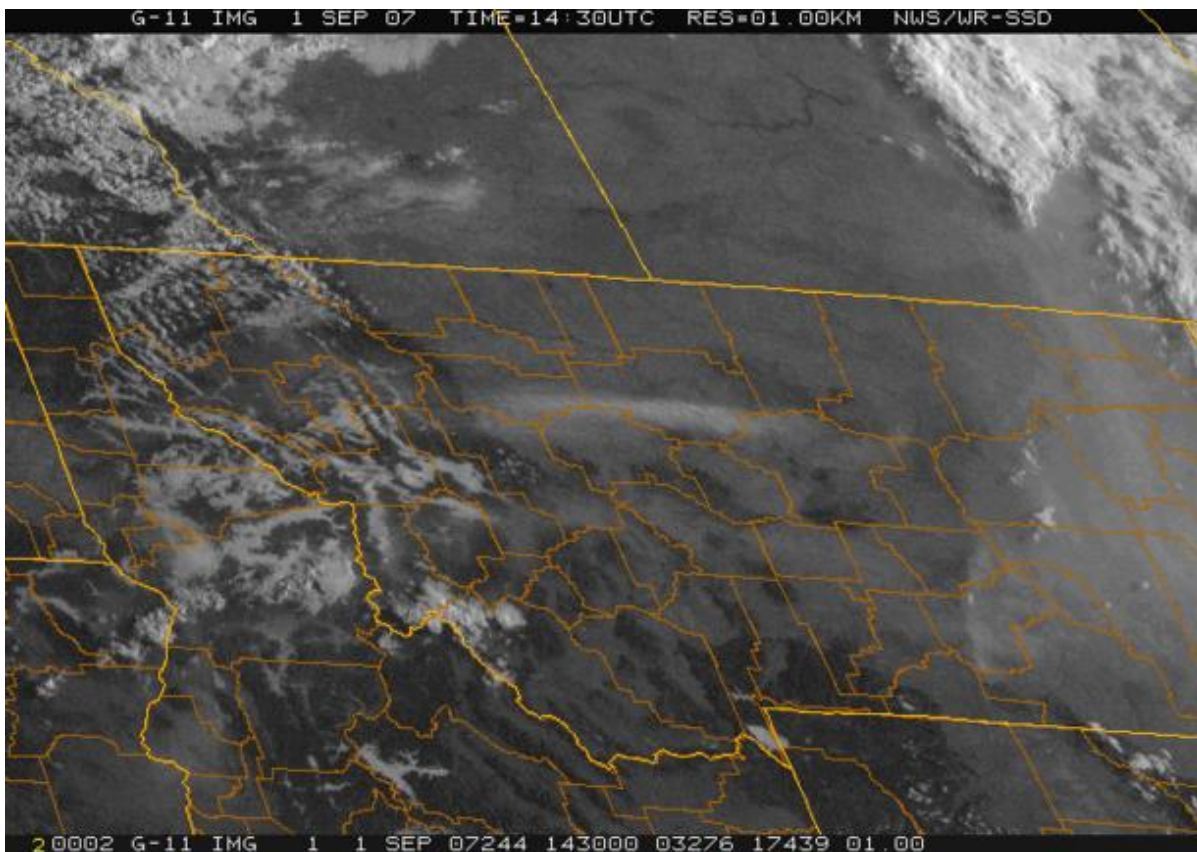
10:00 AM Saturday

FORECAST:

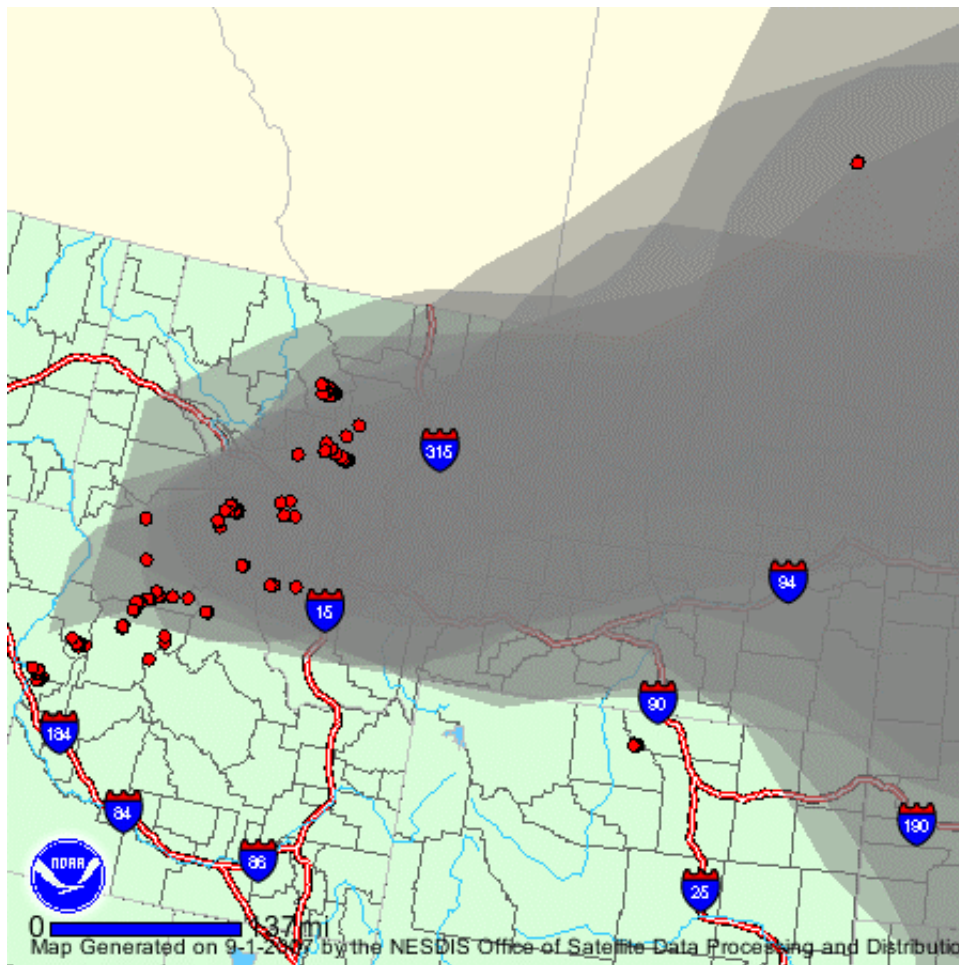
Clear skies after some measurable rain yesterday has produced very strong inversions again today and dense fog in many western valleys. Smoke has reached the surface in eastern Montana producing unhealthy levels of smoke in some areas. Current air quality information is unavailable in the AIRNOW cities due to technical difficulties with the server.

The general transport winds will be from the west today. This will clear the smoke out of eastern Montana later this morning. Particle scavenging in the fog layer may help reduce the concentration of smoke in the western Valleys. After the fog has burned off and the humidity gets below 90%, residents there should use the [VISIBILITY GUIDELINES](#) to determine smoke levels in their area and guide their activity decisions.

A morning satellite photo centered on Great Falls is below: Note the plume of smoke reaching out to the east over Chouteau and Ft. Benton from the fires in the Bob Marshal Wilderness.



This morning's analysis from NOAA's satellite services division shows the active fires in Montana and the smoke plumes combining and spreading downwind (the analyzed smoke is based on yesterday's satellite coverage, the fire detects are based on last night's satellite coverage).



Red indicates hot spot detected. Grey represents smoke seen by satellite. Fire size is exaggerated for visibility at this scale

To identify individual fires on graphic above go here:

http://activefiremaps.fs.fed.us/lq_fire2.php

This morning's smoke report is below, comparing particulate levels where we have information to MDEQ's Forest Fire health advisory levels.

<http://www.deq.state.mt.us/FireUpdates/SmokeCategories.asp>

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DISCUSSION:

A combination of fog and smoke is trapped in most western Montana Valley this morning. Technical difficulties with AIRNOW server have prevented any updates since last evening for the AIRNOW cities. There is still lots of smoke mixed in with the fog but substantial particle scavenging should be occurring with the fog and smoke levels later this morning after the fog burns out may be much improved. Residents in western Montana should use the [visibility guidelines](#) to determine current conditions after the fog is gone. In Eastern Montana the plume of smoke has reached the surface in the Miles City and Baker area south of a frontal boundary. Conditions in Miles City are at UNHEALTHY FOR SENSITIVE but should improve by noon.

The advisories in the table below represent conditions between midnight and 8 AM and may change substantially through the day. Residents downwind of the active fires and experiencing impacts from residual smoke will need to pay close attention to conditions in their area and use the visibility guidelines to determine current conditions.

John Coefield
Meteorologist
Montana Department of Environmental Quality

Locations and severity of forest fire smoke reports since midnight of the date above at reporting stations.

Real time particulate information is currently available in most of the larger urban areas from several different sources including: DEQ run PM-10 BAMS and PM2.5 BAMS, CS&KT run PM-10 TEOMS, NWS ASOS visibility monitors, and USFS remote access Nephelometers and BAMS.

Updated 10 AM September 1, 2007

These advisories represent conditions between midnight and 8 AM and may change substantially through the day

NOTE: TECHNICAL DIFFICULTIES THIS MORNING (see note above)

<u>HAZARDOUS</u>	
<u>VERY UNHEALTHY</u>	Hamilton T24
<u>UNHEALTHY</u>	
<u>UNHEALTHY FOR SENSITIVE GROUPS</u>	Miles City vis(6) Hamilton T24
<u>MODERATE</u>	Baker vis(1)

T1(x) One-hour TEOM or BAM value (number of values)
T8(x) Eight-hour average TEOM or BAM value(number of values)
T24 24 hour average TEOM or BAM value
Vis(x) Visibility value(number of hours)
Vis(am/pm) Visibility value from twice/day reporting stations
(est) estimate

Local impacts in areas immediately adjacent to active fires are expected to exceed some or all of the advisory levels. DEQ recommends the use of local visibility guidelines

<http://www.deq.state.mt.us/FireUpdates/VisibilityRanges.asp> to evaluate possible health risks and make informed activity decisions.